

Procedure 5.1 - Troubleshooting the Keypad and Upper PCA

If the function keys on the electronic console are unresponsive, the problem may be either the upper PCA or keypad. This troubleshooting procedure gives you the information you need to determine which of these components is malfunctioning.

Procedure

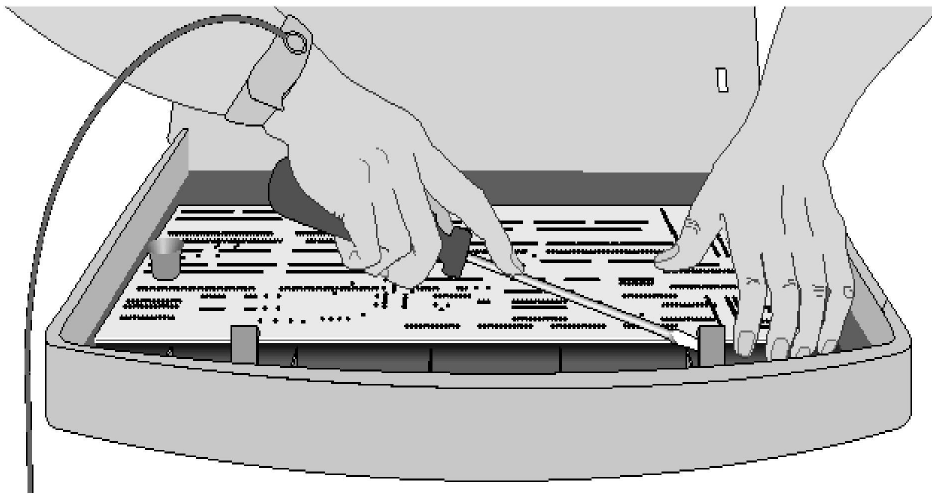
1. Set the circuit breaker in the *off* position.

WARNING

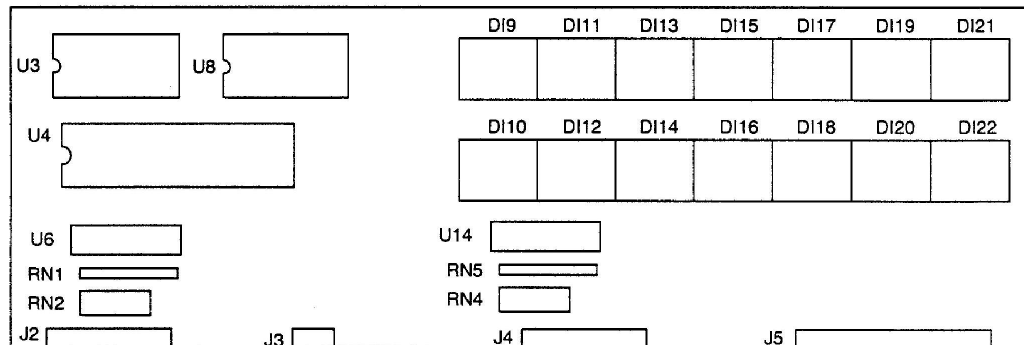
Before continuing with this procedure, review the Warning and Caution statements listed in Section One of the Residential Treadmill Service Manual.

2. Remove the screws that secure the upper display assembly to the upper handrail. Carefully, pull some excess interconnect cable out from the targa upright. Rotate the display housing, so that the rear of the upper PCA is facing upward, and set the display housing on the upper handrail.
3. Attach the wrist strap to your arm, then connect the ground lead of the wrist strap to the treadmill frame.

Diagram 5.1 - Removing the Upper PCA



4. Set the voltmeter to a range that will conveniently read +6 Vdc.
5. Set the circuit breaker in the *on* position.
6. Use a DVM, set for DC volts, and read between pin 5 of J4 and the each of the pins in Table 5.1 (no keys pressed) and Table 5.2 (with the appropriate key pressed)...

Diagram 5.2 - Upper PCA Component Layout**Table 5.1 - Voltage Test Points (Function Keys Not Pressed)**

PLACE THE POSITIVE LEAD OF THE VOLTMETER ON...	THE VOLTMETER SHOULD READ...
Pin 1 of J4	5 Vdc \pm 500 mVdc
Pin 2 of J4	5 Vdc \pm 500 mVdc
Pin 3 of J4	5 Vdc \pm 500 mVdc
Pin 4 of J4	5 Vdc \pm 500 mVdc
Pin 6 of J4	5 Vdc \pm 500 mVdc
Pin 7 of J4	5 Vdc \pm 500 mVdc
Pin 8 of J4	5 Vdc \pm 500 mVdc
Pin 9 of J4	5 Vdc \pm 500 mVdc
Pin 4 of J2	5 Vdc \pm 500 mVdc
Pin 5 of J2	5 Vdc \pm 500 mVdc
Pin 6 of J2	5 Vdc \pm 500 mVdc

Table 5.2 - Voltage Test Points (Function Keys Pressed)

Place the positive lead of the voltmeter on...	At the electronic console, press...	The voltmeter should read between...
Pin 1 of J4	Left CHANGE key	0 Vdc and 350 mVdc
Pin 2 of J4	STOP key	0 Vdc and 350 mVdc
Pin 3 of J4	SPEED ▼ key	0 Vdc and 350 mVdc
Pin 4 of J4	SPEED ▲ key	0 Vdc and 350 mVdc
Pin 6 of J4	QUICK START key	0 Vdc and 350 mVdc
Pin 7 of J4	ENTER key	0 Vdc and 350 mVdc
Pin 8 of J4	Right CHANGE key	0 Vdc and 350 mVdc
Pin 9 of J4	Center CHANGE key	0 Vdc and 350 mVdc
Pin 4 of J2	RESET key	0 Vdc and 350 mVdc
Pin 6 of J2	INCLINE ▼ key	0 Vdc and 350 mVdc
Pin 7 of J2	INCLINE ▲ key	0 Vdc and 350 mVdc

7. If the voltage readings match those listed in Tables 5.1 and 5.2 and one or more keys do not function, replace the upper PCA.
8. If the voltage readings in Table 5.1 are incorrect, disconnect the keypad cable from the keypad connector and repeat the voltage measurements in 5.1. If the voltage readings are now correct, replace the display housing (keypad). If the voltage readings are still incorrect, replace the upper PCA.
9. If the voltage readings in Table 5.1 are correct and one or more voltage readings in Table 5.2 are incorrect, replace the display housing (keypad).
10. Set the circuit breaker in the *off* position.
11. If necessary, carefully re-connect the keypad cable to the keypad connector.
12. Remove the ground lead of the wrist strap from the treadmill frame, then remove the wrist strap from your arm.
13. Position the display enclosure on the display plate. Install the screws that secure the display enclosure to the display plate.
14. Check the operation of the treadmill as described in Section Three of this appendix.